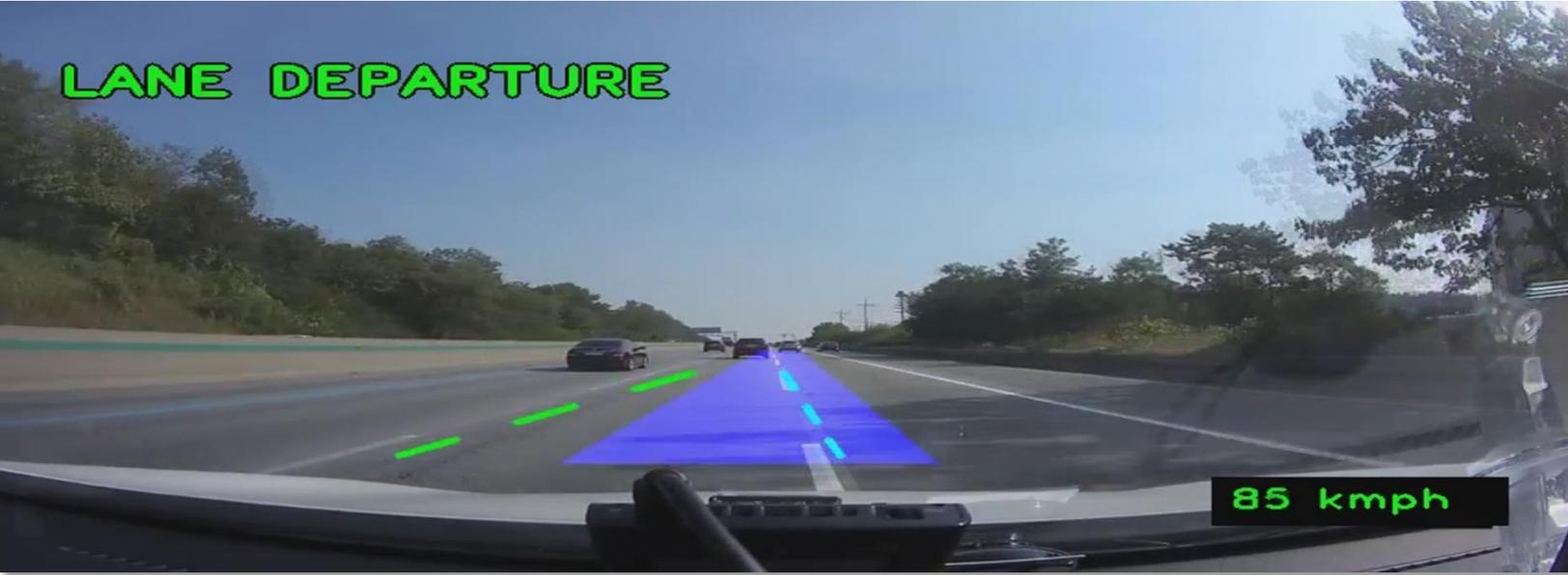## Overview

IntelliVision's *Lane Departure Warning (LDW)* is an ADAS (Advanced Driver Assistance System) application that continuously monitors lanes on the road and alerts the driver to deviation.

Distractions or fatigue turn attention away from the road. LDW can be programmed to alert the driver to unintentional lane departure with various alarm options such as audible alarm, lights, HUD display and vibration, so that the driver can refocus attention and take corrective action.

Highly configurable for sensitivity levels and operational in both day and night conditions, LDW can be implemented in a car DVR, mobile device or even directly onto a camera chipset, giving application developers multiple options.

IntelliVision provides two versions of LDW – Standard and Advanced. See the feature matrix below.
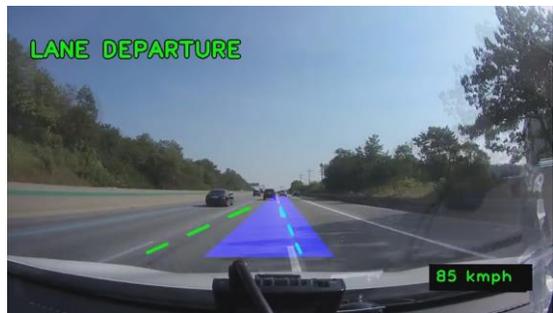
Benefits

■ Improves road safety by alerting the driver to lane deviation

■ Saves the end-user money as a cost-effective aftermarket ADAS solution

■ Simple installation coupled with either manual or automatic calibration saves the end-user time and aggravation

■ Flexible C/C++ API allows easy integration and configuration for application developers

■ Highly efficient algorithms with small footprint, optimized for low-power embedded platforms

Features

IntelliVision's Lane Departure Warning (LDW) provides the following features:

- Automatic scene calibration
- Configurable minimum activation speed

- Reports direction of departure (left or right)
- Alert options (audible alarm, lights, HUD display, vibration)
- Can be enabled and disabled by the user
- Can be suppressed when turn signal is activated
- Flexible implementation options including directly onto camera chipset, car DVR, or mobile platforms
- Operational in day and night conditions

Feature	Standard LDW	Advanced LDW
Configurable controls for event generation	No	Yes
Use cases	Sedan	Sedan, bus, truck
Configurable frame rate	No	Yes (10-30fps)
Processing resolution	CIF	HD
Lane detection up to	30m	60m
Curved lane detection	No	Yes
Lane line type and color	No	Yes

Platform Specifications

- Windshield-mounted camera

- Car DVR or mobile device

- IntelliVision LDW video analytics software can run inside the camera on single-ARM chipsets or on embedded PC platforms

- Android, Linux or RTOS operating system

- Requires non-interlaced input image resolution of 432x240 pixels for optimal performance. Higher resolutions can be supported provided the aspect ratio remains same. Frame rates of 10 fps or higher are supported.

- Lane markings should be clear and image quality reasonable such as proper camera focus, good contrast, low noise and stable video

- Night and low visibility as well as city and highway driving conditions are supported

About IntelliVision

IntelliVision is a market leader in AI and Deep Learning-based video analytics and video cloud software for Smart Cameras. IntelliVision Advanced Driver Assistance Systems (ADAS) improve car and road safety in automobiles. IntelliVision solutions also provide actionable insights for security and monitoring in Smart Home/Enterprise/City/ Retail applications. IntelliVision is a subsidiary of Nortek Security & Control with headquarters in San Jose, California and offices in Asia and Europe.

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